

Claims

1. A security system (100) having a camera (3) for taking pictures of objects, the security system (100) including at least one subsystem (101, 102), characterized in that the first subsystem (101) includes a first function module (1) with a light source whose brightness is controllable, a second function module (6) for generating a digital image sequence from pictures taken by the camera (3), and a third function module (8) for deriving the noise variance as a function of the gray value from the digital image sequence.
2. The security system as defined by claim 1, characterized in that the security system (100) includes a memory (9), in which the function values of the noise variance can be stored in memory as a function of the gray value.
3. The security system as defined by one of the foregoing claims, characterized in that the second subsystem (102) includes a function module (13) for comparing a gray value variance, derived from pictures taken by the camera, with a predetermined threshold value.
4. A method for operating a security system (100), including a camera for taking pictures of objects, characterized in that the method includes a first operating state (initializing phase) and a second operating state (operating phase).
5. The method as defined by one of the foregoing claims, characterized in that in the first operating state of the security system (100), the noise variance is ascertained as a function of the gray value of an image sensor

(4) located in the camera (3) and is stored in a memory (9).

6. The method as defined by one of the foregoing claims, characterized
in that for ascertaining the noise variance as a function of the gray value,
5 the camera (3) including the image sensor (4) is subjected to the radiation
of a light source.

7. The method as defined by one of the foregoing claims, characterized
in that the light source is controlled such that the brightness of the light
10 source is increased in small increments as a function of time and then after
each increase is kept constant for a predetermined length of time, so that
a kind of staircase curve for the functional dependency of the brightness of
the light source on the time is created.

15 8. The method as defined by one of the foregoing claims, characterized
in that the light source, varied in steps in its brightness, is recorded by the
camera (3); that the image sensor (4) of the camera (3) converts the
pictures taken into a digital image sequence; and that from this image
sequence, a functional relationship representing the noise variance as a
20 function of the gray value is derived and is stored in the memory (9).

9. The method as defined by one of the foregoing claims, characterized
in that in the second operating state
of the security system (100), images of a region to be secured are taken by
25 the camera (3), and these images are examined for the presence of moving
objects in the region to be secured.

10. The method as defined by one of the foregoing claims,
characterized in that from chronologically successive pictures of the region

to be secured, the gray value variance for at least selected pixels is ascertained; that if a deviation is found, a comparison with a threshold value is made, and this threshold value is predetermined variably as a function of the gray value.

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11. The method as defined by one of the foregoing claims, characterized in that the variable threshold value is read out from values stored in the memory (9).

10 12. The method as defined by one of the foregoing claims, characterized in that the dependency of the noise variance on the gray value is ascertained for different parameters of the camera (3) and is stored as a function value in the memory device (9).